the author has kept very close to the applications—a plan which makes this work both readable and very useful. Much is done to render the work concrete by constructing from given census data a Northeastern States Mortality Table, and by showing the various steps involved in the construction of the final table.

There are given in the appendix to the work ten useful mortality tables.

It seems desirable to criticise the use of two mathematical expressions. On page 20, lines four and five, the expression "algebraic function" does not appear to be used in its conventional and well authorized sense; for, a function need not be an algebraic function in the ordinary sense to have a determinate derivative. On page 30, last line, we read that "any mathematical law, however, gives a smooth series which enables formulas of approximate summation or integration to be used . . . ." It is not absolutely clear what the author here means by the expression "smooth series." However, I take the statement quoted above to mean that a mathematical law or function gives a continuous curve. If I am correct in this inference, the statement is too general. Mathematical functions are well known which do not give continuous curves. The author's statement holds if the law is given by a continuous function.

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Les Bases Théoriques de la Statistique Agricole Internationale. By Umberto Ricci. (Rome: Imprimerie de l'Institut International d'Agriculture. 1914. Pp. xii, 314. 5 fr.)

This volume by the chief of the General Statistical Office of Italy is a revised and enlarged edition of two papers prepared by him at the request of the permanent committee of the International Institute of Agriculture and read at the meetings of the International Statistical Institute at the Hague in 1911 and in Vienna in 1913 respectively. The original papers were published in the bulletins of the International Statistical Institute.

The first part deals with statistics of acreage and production and the second part with statistics of condition of crops. The treatise takes up in detail the objects and the technical difficulties of agricultural statistics. The author deals entirely with methods and principles and expressly omits all discussion of accuracy of data, selection of field agents, etc., nor does he deal with statistics of live-stock. By thus limiting his field M. Ricci is enabled to de-

vote much space to the clarification of many debated and unsettled problems of statistical method.

M. Ricci's work is a contribution of immense value not only to those interested in international statistics of agriculture but also to those who are concerned with agriculture in any country, for in discussing questions of uniformity the author incidentally hacks through many a Gordian knot that has puzzled agricultural statisticians for years. Such problems as the proper distinction between productive and unproductive land or the proper handling of an area yielding more than one kind of crop during a year, simultaneously or consecutively, are discussed in a thorough and illuminating manner. The actual practice of the principal countries is described and suggestions as to desirable modifications are numerous and valuable. A complete and logical classification of crops is worked out in detail. A program for adoption by the different countries in regard to statistics of acreage and production is presented in chapter 14.

Chapters 15 to 27 discuss statistics of crop condition, chapter 27 presenting a program of action. The author prefers the method of actual estimates, expressed in percentages of a decennial average, to a method of classification of conditions as good, medium, and bad. He suggests that such estimates be collected on the first of each month of the growing season in order that the International Institute be enabled to publish them by the middle of each month.

<div align="right">E. A. GOLDENWEISER.</div>

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<div align="center">NEW BOOKS</div>

CULLIMORE, A. R. *The use of the slide rule.* (New York: Keuffel & Esser Co. 1915. 50c.)

DIENER, R. *Das Problem der Arbeitspreisstatistik und seine Lösung mit Hilfe von Berufsterblichkeits- und Lohnstatistik.* (Munich: Duncker & Humblot. 1915. Pp. 184. 2.50 M.)

KEYNES, J. M. *Principles of probability.* (New York: Macmillan. 1915.)

MacNUTT, J. S. *A manual for health officers.* (New York: Wiley. 1915. $3.)
 Contains a chapter on vital statistics.

STAMP, J. C. *British incomes and property. The application of official statistics to economic problems.* (London: King. 1915.)

The Canada year book, 1914. (Ottawa: Minister of Trade. 1915. Pp. 698.)